



Boeing Benchmarking Visit

Supplier Quality Surveillance and eRisq

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Boeing Benchmarking Visit

Boeing Supplier Quality

- NASA and MDA benchmarked Boeing Quality's best practices
 - Mesa, AZ Dec 4-5, 2013
- Boeing presented the following best practices;
 - MRB Common Process Team
 - Root Cause Corrective Action
 - Part Orientation Identification Navigation Tool (POINT) System Overview
 - Supplier Quality Special Processor Controls (aka D1-4426)
 - Supplier Quality Surveillance
 - Flight Safety Parts Program
 - First Article Test

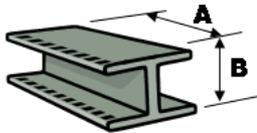
- Risk based surveillance assesses product, quality system processes and manufacturing processes
- Risk Assessment Tool (eRisq) used to evaluate more than 20 data elements to determine risk and plan surveillance
- Common surveillance approach across Boeing enables collaboration and leveraging of resources at suppliers
- SQS plans adjusted throughout the year with ad-hoc requests and Intra-year risk tool run
- SQS is only one of many SQ tools used to manage suppliers – e.g. Source Inspection, Receiving Inspection, First Article Inspection, Quality Requirement Reviews, Special Process Audits, etc.

Risk Based approach with Robust Surveillance Tools

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Product Assessments

Production



- Compliance focused
- Review of individual Part mfg
- Report includes physical measurements
- SERs for findings

MRO

- Compliance focused
- Includes unique MRO facility requirements

Quality Process Assessments



- Compliance and Improvement
- Review of quality processes
- Report includes results and observations
- SERs for findings
- Examples:
 - Sub-tier Supplier Control
 - Corrective Action
 - First Article Inspection

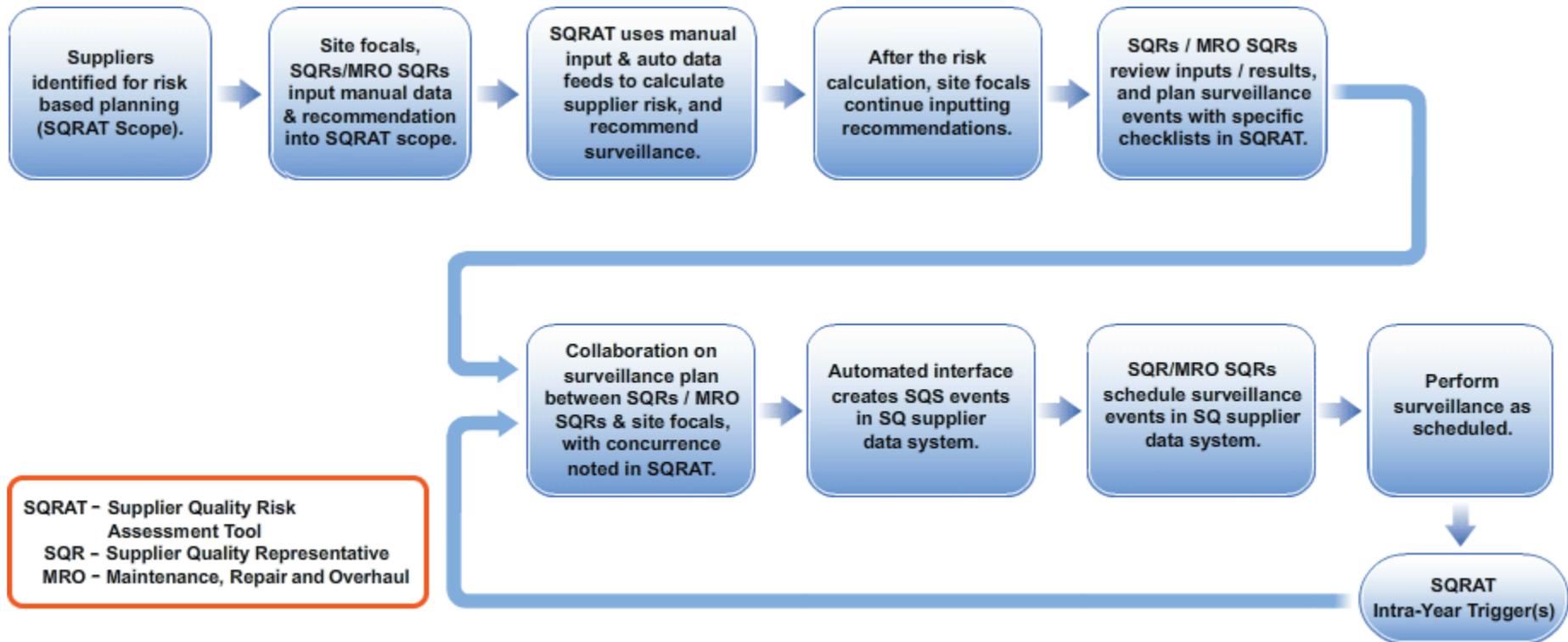
Mfg. Process Assessments



- Compliance and Improvement
- Review of mfg. processes
- Report includes process capability and data analysis
- SERs for findings
- Examples:
 - Mechanical Assembly
 - Hole Drilling
 - CNC Machining

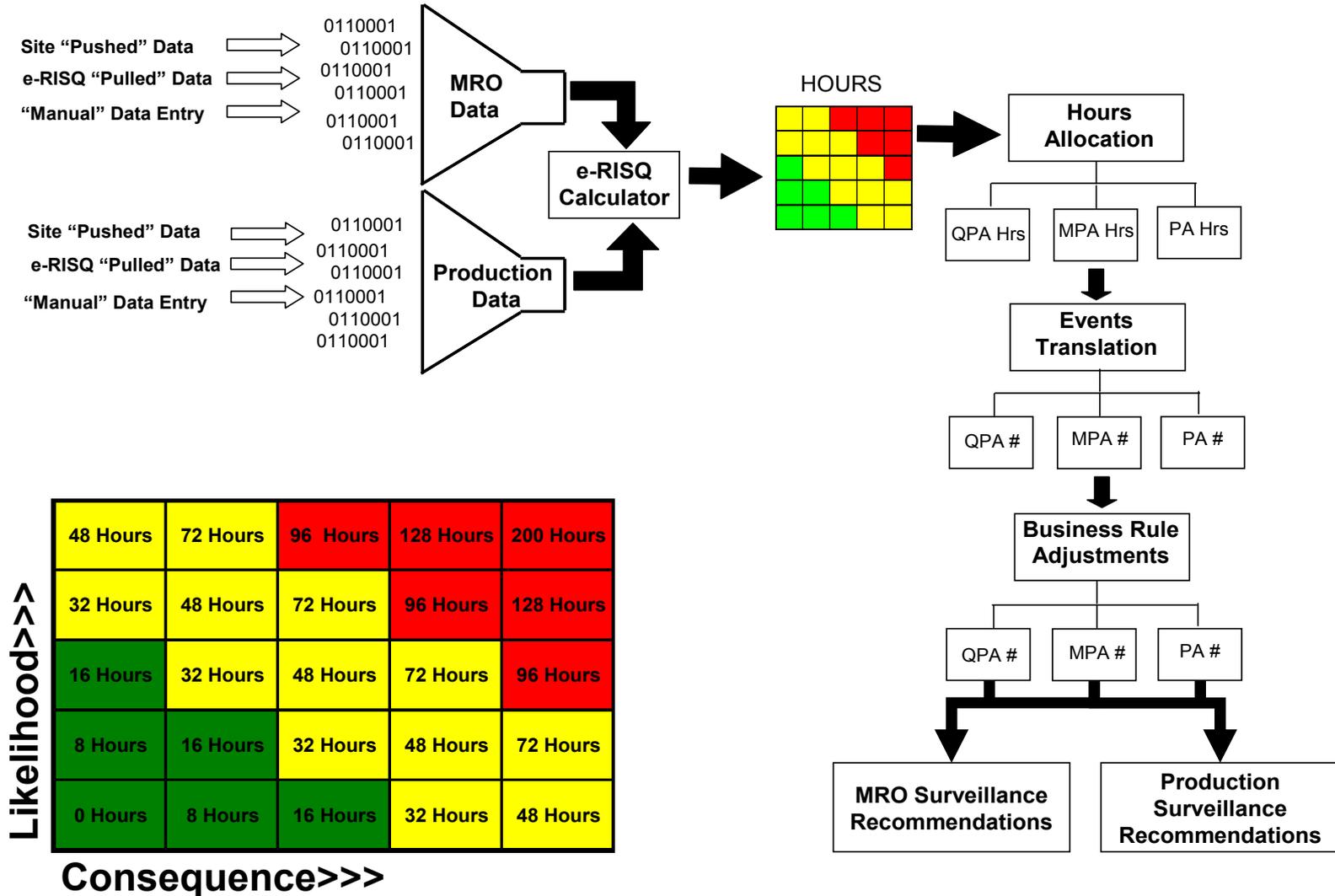
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SQS Planning Process Flow



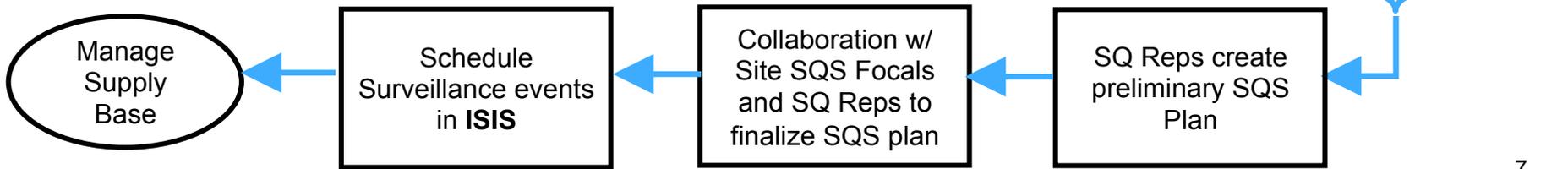
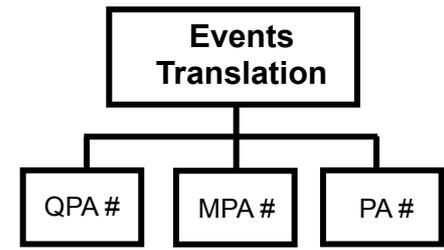
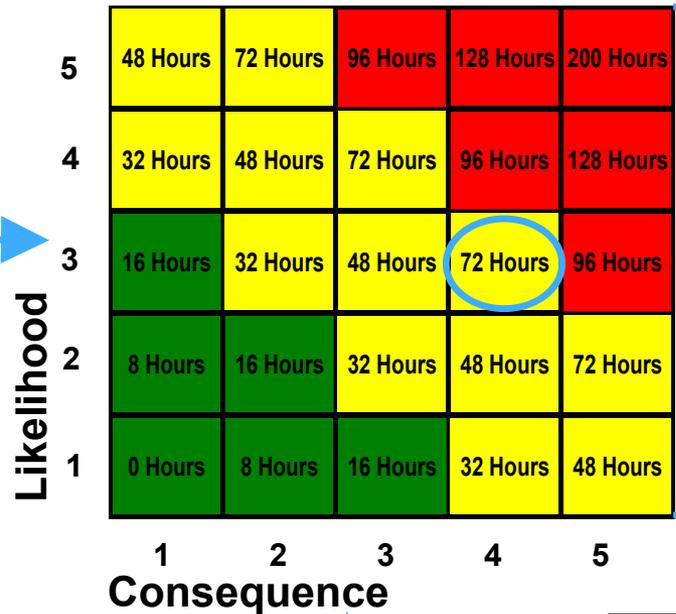
Surveillance Plans are updated throughout the year

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Likelihood Risk Elements (y-axis)	
99.67
94.33
0.00
91.10
0.00
0.00
96.02
94.01
No
Consequence Risk Elements (x-axis)	
96.45
97.63
99.13
9.00
No
Yes
No
Business Rules	
No
No
Yes
No
No





eRisq Distribution Production Suppliers

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eRisq Risk Summary

Plan Cycle: 11/29/2011

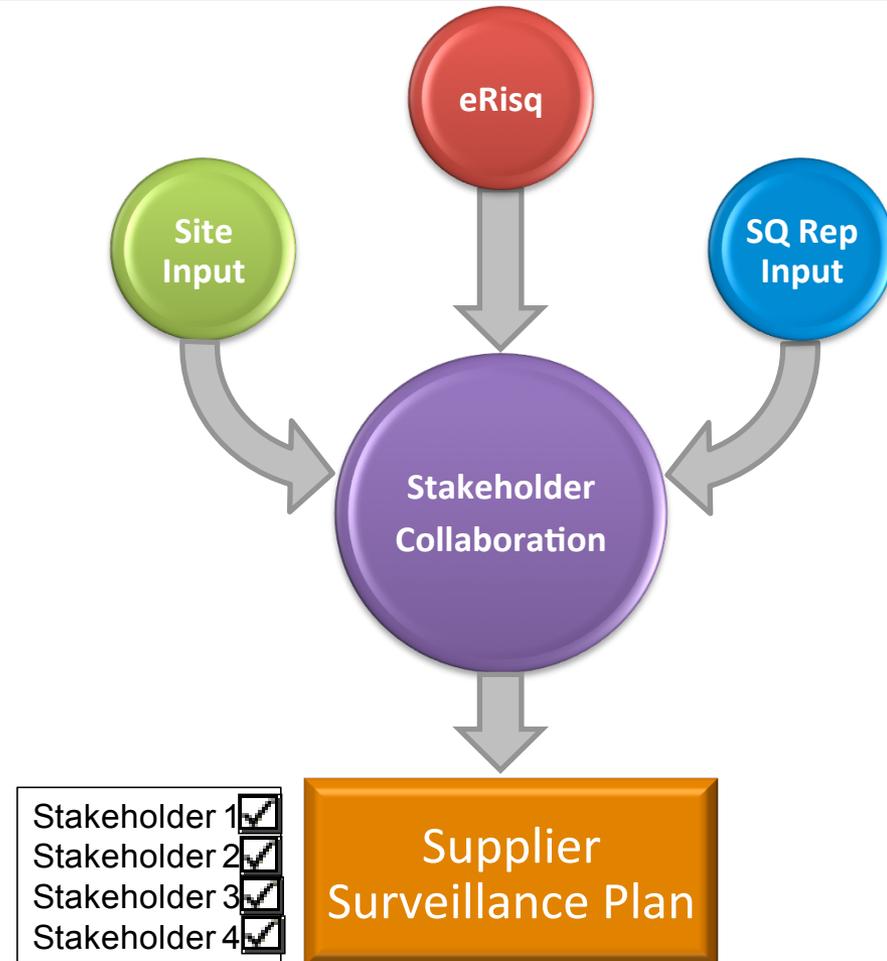
Production - Suppliers



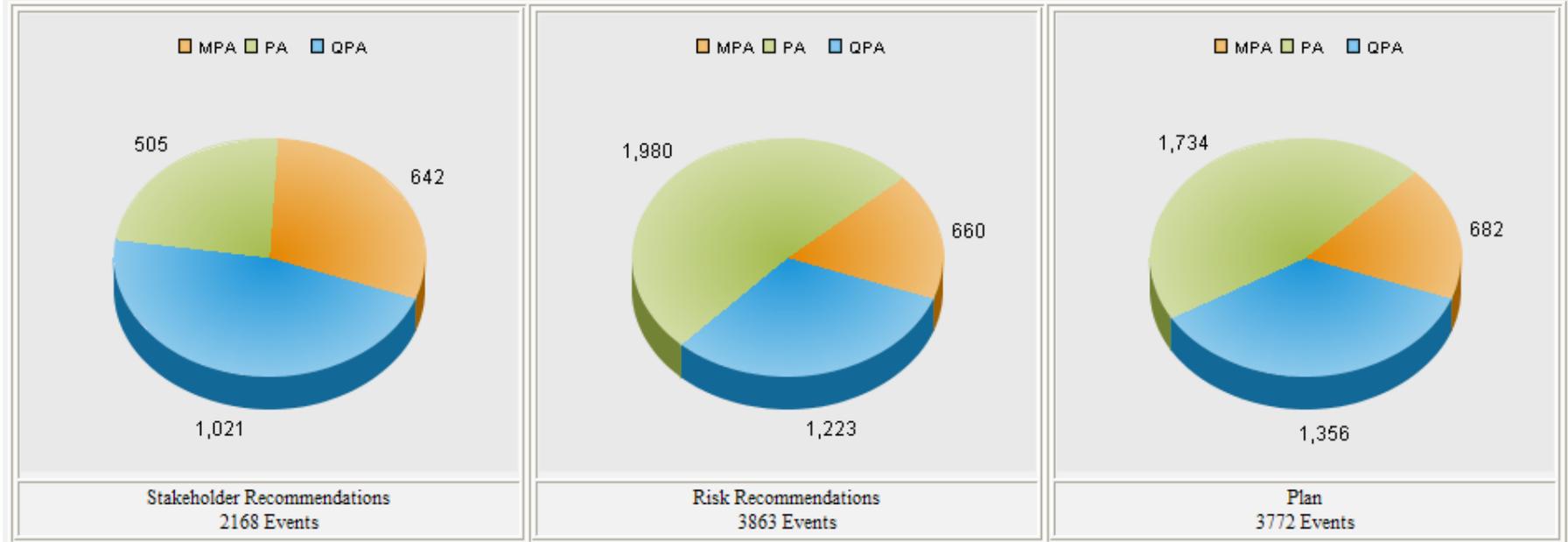
Total Suppliers:	2,889	Total Events:	3,872	Total Hours:	51,320
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Boeing Proprietary

- Preliminary plan created:
 - eRisq recommendations
 - Boeing site recommendations
 - SQ Rep recommendations
- Collaboration between SQ rep and Site Focals
- Concurrence must be reached to finalize plan
- Final plans are scheduled with suppliers



Boeing Supplier Quality



- 2,889 Boeing Production Suppliers analyzed for 2012 SQS Planning
 - 1,734 PAs Planned
 - 1,356 QPAs Planned
 - 682 MPAs Planned
 - 3,772 SQS Events

- Intra-Year SQS Planning reviews supply base for changes in risk
- Opportunity to conduct risk planning for new suppliers added since last annual planning, or exceeded the 24-mo. Business rule
- Site SQS Focals collaborate to recommend additional surveillance activity at suppliers
- Intra-Year Planning supplements ongoing adjustments to SQS Plans

Updating Surveillance Plans based on changes in Supplier Risk

- SQS Change Board and Focal teams manage SQS process and tools, providing ongoing support, maintenance and process improvements for the SQS process
 - Manage annual / intra-year SQS planning process
 - Maintain/improve SQS surveillance tools
 - Disciplined checklist maintenance process
 - Maintain/improve eRisq tool for planning
 - Maintain/provide SQS Training
 - Maintain SQS command media and SQS webpage
 - Monitor performance of SQS tools (Assessment Reviews)
 - Maintain SQS metrics and process health monitoring

Continuous improvement for the SQS process

Boeing Supplier Quality

- Robust surveillance tools for assessment of product, quality processes and manufacturing processes
- Risk-based Process with input and collaboration from sites/ programs/Reps to ensure effective use of resources
- Surveillance Plans are continuously updated throughout the year
- Review of assessment results and performance metrics leads to continuous improvements
- Surveillance complements the many SQ tools used to manage suppliers

World-class element of Supply Chain Management strategy



Questions?